

CLAIMS

1. A method for measuring internal pressure of a body comprising:

- aligning a longitudinal axis of a light projecting and collecting device with said body;
- 5 • detecting changes of intensity of light reflected from a convex sector of a surface of said body and delivered by total internal reflection in a light guide, and wherein said changes are related to a distortion induced by a pneumatic pulse, and
- 10 • matching a time-related feature associated with said changes of said light intensity measured with a given pressure value, wherein said time related-feature is any of the following: a time length of said pneumatic pulse, a time interval in which said changes of said light intensity measured are detected, a slope of said changes of said light intensity measured.

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2. A method for measuring internal pressure of a body as in claim 1, wherein said time-related feature is a slope of said changes of said light intensity measured.

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3. A method for measuring internal pressure of a body as in claim 1, wherein said body is an eye.

4. A method for measuring internal pressure of a body as in claim 1 and wherein said light projecting and collecting device is a unitary light projecting and collecting device tube (LPCT).

5. A method for measuring internal pressure of a body as in claim 1, wherein said aligning is carried out using a user observed reticle.
- 5 6. A device for measuring internal pressure of a deformable body wherein changes in the reflectance of a sector of said body are measured in correlation with a distortion of said body effected by a pneumatic pulse, and wherein said sector located within a convex surface of said body, said device comprising:
- a first tube having a substantially thick wall pointing at said sector wherein the
10 proximal face of said wall is adapted to receive light reflected from said body;
 - a second tube for conveying pneumatic pulse to said deformable body;
 - a light detector receiving light from said wall of said first tube, and
 - a reflector used for both deflecting a beam of light of a light source through the lumen of said first tube to said body and for blocking reflected light from
15 said body.
7. A device for measuring internal pressure of a deformable body as in claim 5 and wherein said deformable body is an eye.
- 20 8. A device for measuring internal pressure of a deformable body as in claim 6 comprising in addition a reticle for projecting an image thereof on said eye.
9. A device for measuring internal pressure of a deformable body as in claim 6 and wherein said light detector is connected to a control unit which also compares the

curve of changing reflection of light as correlated with a transient deformation of the eye with stored equivalent slopes of eyes having given internal pressure values.

10. A device for measuring internal pressure of a deformable body as in claim 6 and
5 wherein a mounting is included for securing said the device to the head of the user.